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ABSTRACT

Jilin is a rural province in northeastern China, known for its forests and forest products such as ginseng. In the past, Jilin's schools focused on preparing students for higher education and offered little of relevance to most rural students. In addition, the schools were understaffed and were managed by a remote, centralized bureaucracy. In 1987, a project was launched to improve schooling and link it to agricultural production and the economic needs of families, communities, and the province. Jilin education officials used initial funding from UNESCO to develop curricula and supplementary materials and to expand teacher training and community participation in 12 pilot elementary schools. The project introduced school-based management by a committee of educators, parents, and community leaders; developed a locally relevant, practical curriculum that included hands-on experiences in agriculture and daily living skills; and greatly expanded teacher training to align with the new curriculum and used professionals and other specialists as temporary instructors. Today, the program has expanded to 146 schools without additional UNESCO funding and is expected to spread throughout the province. Academic skills have improved dramatically, students cultivate ginseng and many high-production crops, and some schools have set up small businesses. Features that have contributed to this program's extraordinary success and expansion are discussed. (Contains photographs.) (SV)

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Comprehensive Rural Primary Education Reform Project, Jilin, China

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UNESCO

The Head of the Dragon

By Victor Ordoñez and Constanza Montana

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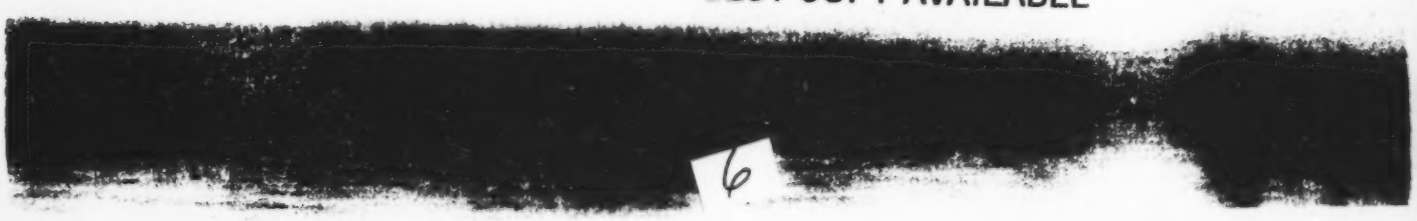


Education for All: Making it Work

About the project...

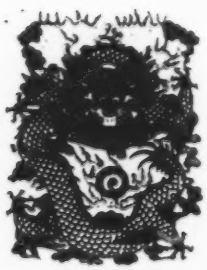
The World Conference on Education for All, held in Jomtien, Thailand, in 1990, recognized that a policy of «more of the same» would not be sufficient to achieve the goal of education for all. Educational systems in most countries clearly need an injection of fresh ideas, a broader vision of how the basic learning needs of all might be met, and the courage to turn this vision into practice.

It was the quest for an expanded and renovated vision of basic education which prompted UNESCO and UNICEF to launch their joint project «EDUCATION FOR ALL: MAKING IT WORK» right after Jomtien. The two Organizations decided to disseminate and promote examples of educational change – both in the realm of formal and non- formal education – through which the principles of Jomtien would come to life: programmes which provide learning opportunities for children, youth, and adults, including underserved groups and those with special needs; programmes which focus on actual learning acquisition, rather than on mere participation or certification requirements; programmes which aim to provide a solid foundation for life-long learning, which are responsive to the learning needs and conditions of the socio-cultural environment, and which build effective partnerships with local communities and parents.

UNESCO and UNICEF believe that effective and sustainable change in education arises from the inventiveness, experience and dedication of educators, parents and community leaders at the grassroots. The «EDUCATION FOR ALL: MAKING IT WORK» project shows that educational innovation and change are already underway in all developing countries and that even the poorest countries are able to take up the challenge of devising educational programmes to fit their means, needs, and aspirations. The project strategy emphasizes educational innovation in practice rather than discourse. The INNOV database presents many little-known experiences, some of them with considerable potential. The most promising and significant ones are showcased in the present series of booklets, or through films contained in the EDUCATION FOR ALL VIDEOBANK. Others are grouped together and compared in a new series of THEMATIC PORTFOLIOS, devoted to critical issues in basic education.

All these resource materials are used in training workshops, inter-project visits and similar activities meant to support specialists and planners from developing countries in their struggle to turn education for all into reality.

The project team will be pleased to receive new information, comments and suggestions from all those interested in promoting change and innovation in basic education. We particularly appeal to UNICEF and UNESCO colleagues in the field to co-operate actively with the project.



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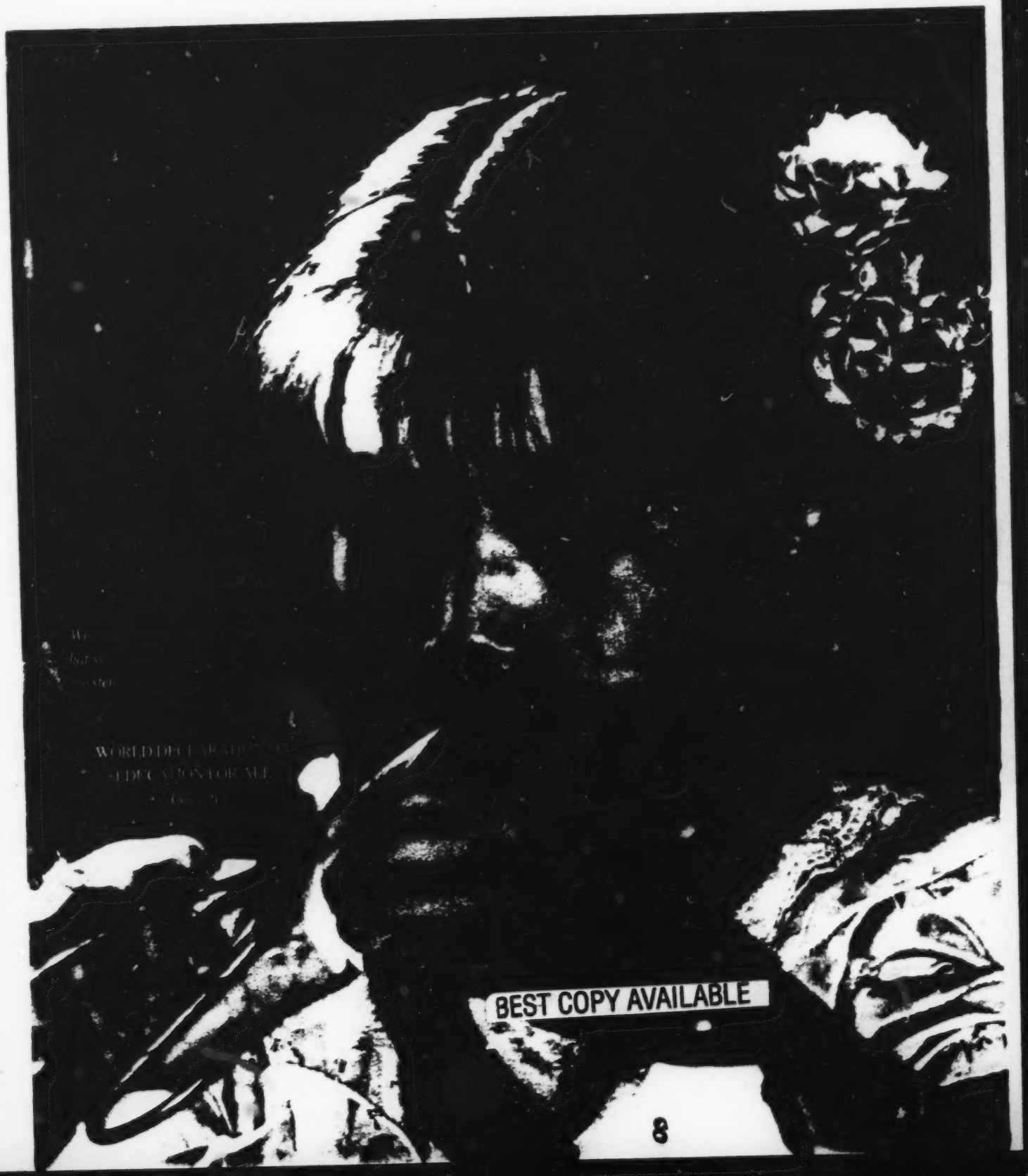
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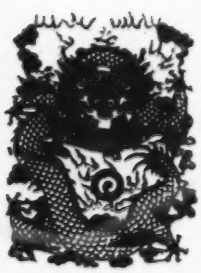

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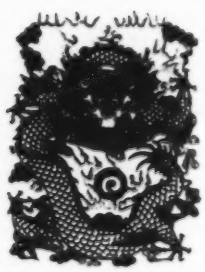
The Head of the Dragon

The dragon is the symbol of China. This mythological creature, the only one of the 12 Chinese horoscope signs that is not a real animal, holds a special place in the country's folklore. In ancient times, the dragon was the mark of the emperor and represented benevolence. In contemporary China, the expression "head of the dragon" has come to mean the start of something important.

龍頭

For several decades now, China and other countries of the world have been grappling with social and economic inequalities dividing urban and agrarian areas. In primary education, students living in cities achieve higher academic scores and stay in school longer than their counterparts in rural areas. School officials based in capital cities are also more likely to direct national textbooks, lessons and other learning elements at the urban pupil. As a result, children in the countryside often find themselves studying subjects that have little relevance to their daily lives and contexts.



Furthermore, schooling under China's planned economies has focused for many years on preparing students for higher education and not necessarily for the development of needed human resources. Curricular content has provided students with few skills needed in rural production, let alone health, hygiene and nutrition.

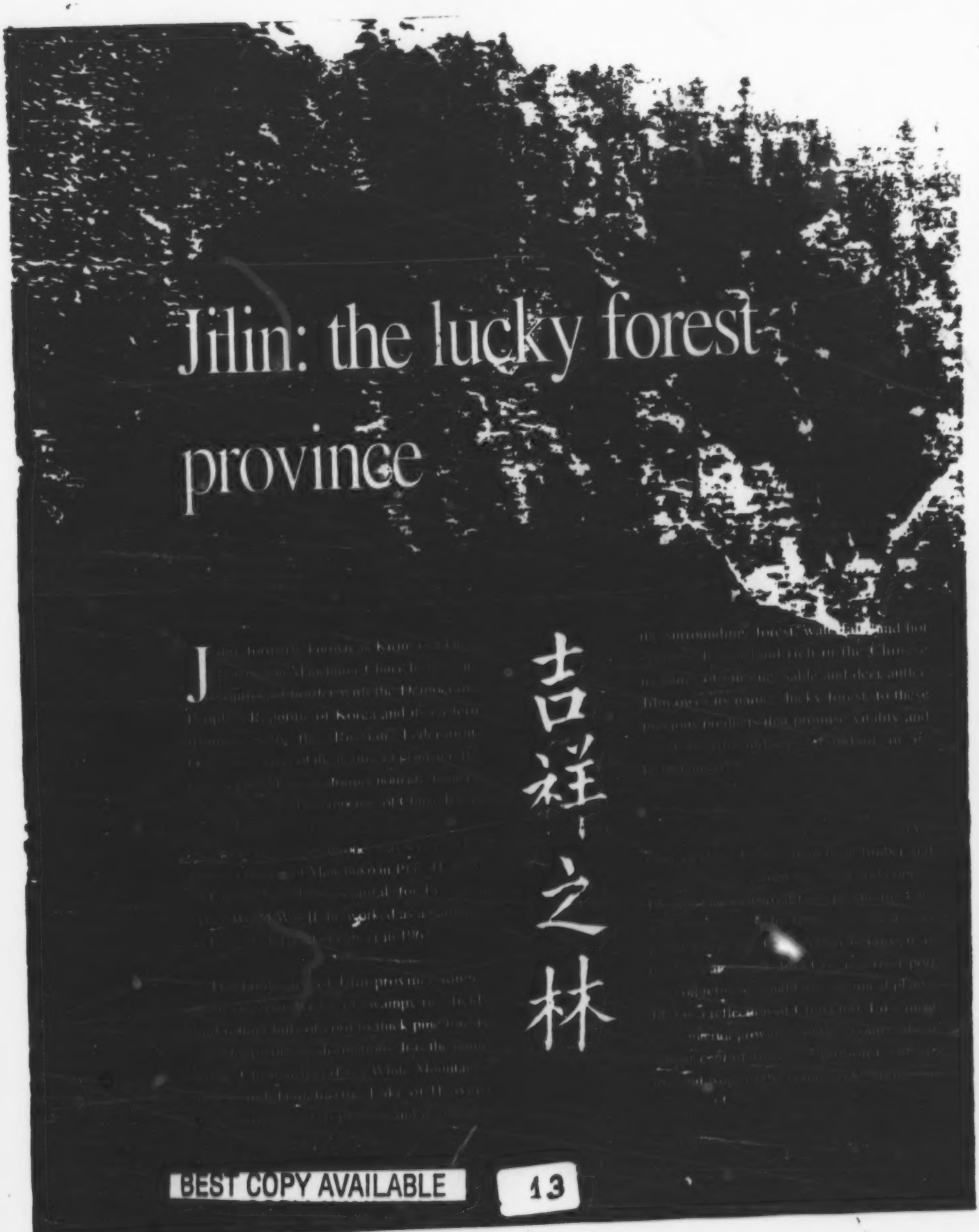
Like many other provinces in China, Jilin province, in Manchuria, didn't used to have sufficient numbers of primary school teachers and more than 50 per cent of its working teachers were inadequately prepared. A centralised education administration, far away and often out of touch with local needs and realities, failed to motivate regional governments and individuals in the management of the schools, thus cutting off parent participation. But, today, a UNESCO project in Jilin province is turning into the "head of the dragon" leading this north eastern region in its struggle to improve learning conditions in rural areas. Jilin's Comprehensive Rural Primary Education Reform Project (CRPERP) was launched by the province's education board in 1987. The project has set itself as goals to improve schooling and make it more meaningful to local students and their community's economic development, to narrow the gap between actual education and agricultural production, and link schooling to the economic needs of Jilin province and its 25 million inhabitants.

Jilin education officials used an initial contract from UNESCO to develop curricula, supplementary materials and to expand teacher training and community participation in 12 pilot primary schools in Jilin. Over the last decade, this has grown into a project that has succeeded in achieving reformed school management, in developing curricula

which are more relevant to life in Jilin province, in creating parent committees, in training teachers with new skills, and in employing specialists as temporary instructors. Today, the project has expanded, without additional funds from UNESCO, to 146 primary schools

More importantly, this school reform project has achieved its primary goal by successfully linking education to improving rural development. As a result, reading, writing and mathematics skills have improved dramatically, according to a 1993 evaluation of the 4,695 pupils in the pilot project. In addition, students in this northern province now drive tractors, cultivate ginseng and have planted more than 20 different kinds of high-quantity crops. Some schools have set up small businesses selling chickens, seeds and saplings.

"The experiment has been hugely successful, re-orienting curriculum to local learning needs and significantly improving achievement and retention rates," says Mr. Prem Kasaju, of UNESCO's Thailand Office (The Principal UNESCO office for Asia and the Pacific), who has followed this project since its beginning.



Jilin: the lucky forest province

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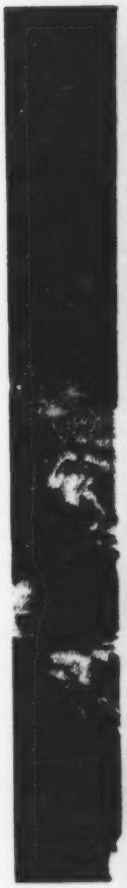
Preparing the groundwork for the experiment



安排用武之地

For many years, China has stressed the need to improve primary education. In 1985, the government enacted a law to make it compulsory. That year, Chinese officials, including some from Jilin province, attended a UNESCO conference in Tanzania on reinforcing the role of primary education in rural areas. At this meeting, delegates from Asian, African and Arab countries emphasised the role that rural elementary education must play in meeting the needs of local development.

The UNESCO meeting encouraged its participants to engage in research to develop school reform projects that would integrate school education to social and economic development. These events led the leaders of the Education Commission of Jilin province to analyse the problems faced by their rural schools more closely.

Mr Chen Mo Kai, Director-General of the Jilin Provincial Education Commission and Deputy Director Zhang Yin realised that education under China's planned economies was too narrow and centrally controlled. The national curriculum focused on preparing students for college and university but failed to teach them practical skills to improve the local economy and agricultural production that would help them tackle the very real problems they faced within their own context.

The Jilin officials discovered a cumbersome education administration that was too far removed from the local school. School management was centralised in Beijing and as a result failed to motivate local governments and individuals to play an active role. It did not encourage parents to participate either.

The national curriculum was out of touch with the needs of rural children. Lessons provided little information or skills needed to survive in the countryside. They were weak in teaching about labour, health and nutrition. Rural primary education was not connected to other activities outside the school. Students were not encouraged to put into practice at home what they had learned in the classroom. As a result they could not share these lessons with their parents and others in the community.

Mr Chen and Ms Zhang discovered the persistent problems spawned by shortages of teachers, books and financial resources. More than 50 per cent of the working instructors lacked adequate training and had difficulty teaching.

"At that time, students knew only how to read and write," Ms Zhang says. "They could take exams, but they could not plant vegetables."

Children spent their entire school day following a nationally set curriculum that provided them with few skills needed in rural production, and little information on health, hygiene and nutrition. Consequently, the national drive to produce individuals with six years of primary education was having little impact on the economic development of Jilin.

Children were dropping out. Parents discouraged them from walking miles to a school that offered them an empty future. Instead, they urged their sons and daughters to stay home and help with the farm.

Mr Chen and Ms Zhang also analysed the comparative deficiency of farming in China. They realised that its improvement depended on science and technology. There had to be a way of linking this need for improvement in farming production with improvement within the actual education system. To meet the challenge, they decided to develop a project that would reform Jilin's rural primary schools. They agreed that the first goal of this experiment should be to structure a primary schooling programme that would address the needs of rural communities. The key was to integrate learning with productivity and development. They became convinced that reforming rural education could have a significant positive impact on the country's rural and national economic development.

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Planting the seeds of the experiment

初步實踐

The Jilin officials decided to prepare an experimental project to reform rural schools in line with the research encouraged by UNESCO at the 1985 Tanzania meeting. They turned to China's UNESCO National Commission and asked them to help launch the project. After signing a contract in November 1986 with the Education Commission of Jilin province, UNESCO provided an initial and not too substantial sum to develop curricula, supplementary materials, train teachers and encourage the community to participate.

The commission's use of the funds was a departure from other UNESCO projects. They did not dilute the limited sum by spending it on a single reform element such as textbooks or teacher training. Instead, they allocated the money to all the components of the experiment in a sweeping and comprehensive scheme. This focused method limited the project to a small number of schools.

Mr Chen and Ms Zhang then began selecting the appropriate schools for the experiment. They wanted schools that would represent a fair cross-section of the province's economic, cultural and geographic features. They chose 12 schools in six counties from the province's various regions that range from prairie to mountain and areas that have diversified economies to suburban zones, villages and townships.

They then set up a directing committee for the project that included representatives from the province's education commission, the Educational Institute of Jilin province and the North East Normal University. The role of this group was to provide guidance in research, implementation and evaluation. The project was launched officially in 1987. The launching was carried out without providing the schools with extra funds or teachers.

That first year, the Jilin educators organised and prepared the materials to be used in the reform experiment. They revised content, teaching methods and the overall approach to education with the primary goal to make it more meaningful for students in rural communities. "The idea behind the project was to encourage students to stay in rural areas and help develop them," Ms Zhang stresses.

Encouraging students to stay in their area meant introducing two specific elements. First, the school calendar was adapted and modified to include elective activity periods and work in the fields. Second, the educational content was revised by deleting some parts of the national curriculum and adding elements that formed the basis of a new provincial curriculum. It was local school officials who designed new subject matter relevant to their students.

Reforming school management

革新教育管理

Before the project began, officials ran the schools with barely a trace of community participation. Jilin officials changed this by asking each school to form an education management committee that included the school principal and parents as well as village and township leaders. Inclusion of the local political leaders was important to garner their support. "We had to train the government of the townships about the importance of this project so that they paid attention to it," Ms Zhang says.

Each management committee's main function is to ensure that the school meets the needs of the students and the local economy. Through regular meetings this group sets learning goals and establishes a curriculum. They attempt to reverse the tide of teacher attrition by solving problems faced by teachers: housing, employment for their children and spouses, seeds and fertilisers for their plots of land. They manage the extra-budgetary education tax allocated to each school. The committee also tries to raise funds from local businesses and individuals to buy textbooks and improve the school's facilities: science laboratories, libraries, clinics, etc.

In Taiping village for instance, the management committee pledged to provide chemical fertilisers, farm tools and seeds to the school and now helps ensure that products are sold at market value.

Besides supervising the school's internal operation, the management committee establishes outside ties with local agricultural institutes, hospitals and other organisations. Through co-operation agreements with the school, the local research laboratory or clinic sometimes provides experts as part-time teachers.

"We have awakened the people's interest in running education," says Gan Pei Tao, the principal of the Central Primary School of Wanliang Township in Fusong County.

Each school also has a parent committee. It acts as the bridge between the home and the school and meets at least three times each semester. At the beginning of the academic period, the parents help to select the workshop activities and the appropriate instructors. Often, if they have a special skill or craft, they will volunteer to teach it at the school. In the middle of the semester, the parents discuss the school and the family education process. At the last meeting, they evaluate.

This group also tries to motivate other parents to take an interest in the school. They encourage them to visit the school, learn about the reform process and participate in its evaluation. They also help set up classes that inform mothers and fathers about health and nutrition and the subjects and methods related to their children's education. These parent schools not only broaden the parents' education, but also provide them with tools to help their children.

"The parent's association is directly involved in the management of the school," Ms Zhang says. "The school trains parents in how to co-operate with the schools," she adds. "The purpose is to link school, family and society."

Making the curriculum relevant

As in many countries, in China's elementary schools, reading, writing and arithmetic are the main academic subjects. Before the project, the Jilin schools relied on mathematics, reading and language textbooks developed for nation-wide use. Too often, rural students spent their school day sitting passively behind desks reading stories, solving problems and performing other tasks designed for their urban counterparts.

Jilin officials realised they needed to reverse this trend. In the reform process, they developed two crucial components that became the cornerstones of the project's pedagogy. First, they tailored the curriculum to the students' daily lives. Second, they provided the pupils with hands-on experience.

"The main problem we met was reforming the curriculum and the textbooks," Ms Zhang says. "We had national textbooks and we developed new ones at the provincial and local level. How to determine the right mix—what to include and exclude—was another problem."

The leaders of the Comprehensive Rural Primary Education Reform Project in Jilin revised the traditional curriculum by deleting some of the chapters from the national textbooks that were found to be of little relevance to rural children. They added two textbooks for each grade level throughout the province: Language skills for Rural Students and Practical Mathematics for Rural Students.

教育優先

The provincial language skills books now used by fifth and sixth graders teach them about activities never encountered before China began its transformation to a market economy. Pupils now learn how to open a bank account instead of stuffing their savings under a pillow. They master lessons on drawing contracts, filling out forms, sending telegrams and other practical advice provided by the new textbooks.

The mathematics textbooks teach calculation skills using problems that the student is likely to encounter on his parents' farm. For instance, students learn how to measure the area of an uneven plot of land. They work out monthly balances after the sale of pigs and eggs and the investment in seed and fertiliser. They use apricot kernels, stones, beans and other items found commonly in rural homes to help them calculate sums.

Each school and/or county also developed curricula for the project designed to reflect truly local conditions. These new textbooks, often small paperback leaflets, focus on the local economy, health, hygiene and nutrition. The Homeland books, for example, include lessons on local geography, nature, agriculture, history, folklore and customs. The Labour books teach practical skills step-by-step.

Books designed for use in Siping Village, for example, teach first graders how to brush their teeth

and wash their clothes. Second and third graders learn about planting vegetables, the use of a hammer, identifying and handling batteries. Students in the upper grades learn how to use wrenches, lay bricks, operate a wood-burning stove safely or how to make sticky paper to trap and kill insects (large quantities of insects being a major problem in the countryside).

The schools also provide students with many textbooks on their local agriculture. The Production Techniques series includes such titles as Identifying and Growing Superior Corn, Ginseng Cultivation Techniques, Vegetable Growing Skills and Raising Economically Valuable Animals.

Bringing the curriculum to life through hands-on experience was the second major reform this project adopted. Since the Jilin officials could not lengthen the seven-hour school day, they struck a balance between traditional academic subjects and new practical activities. Now students spend less time in the classroom and about three hours a week in workshops and fields.

During specific periods, school officials adjust these times, says Yi Fucai, an education official in Jingyu County. "During planting and harvesting, students spend three days in the field," he explains.

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Improving classroom instruction

改進課堂教學

The new curriculum emphasises learning through practical and relevant activities. But Jilin officials discovered that many of their teachers were not qualified to teach these new skills. The instructors were often young and inexperienced. Many did not regard teaching as a life-long profession. Teacher attrition was high. Like their students, the teachers had only learned traditional academic subjects. Many had completed only secondary school. Most had undergone very limited teacher training.

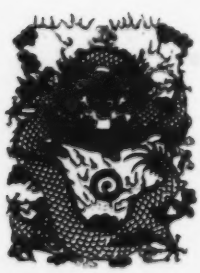
For instance at the Hengdaohe Township School in Dongfeng County, only 16 of the 26 teachers have completed 12 years of schooling. Their average age is about 31.

To overcome these problems, the project leaders motivated the teachers to actively participate in the reform experiment by inspiring them to broaden their spheres of knowledge. First, they introduced the teachers to the reform project's pedagogic ideas and goals. They pushed the teachers to learn the needs of their communities, the natural resources available, the local production structure and economic trends. In particular, they encouraged the teachers to discover the disparities between the province's needs and available resources. The instructors evaluated the necessity to improve production in agriculture, forestry, animal husbandry and fishing. They then compared these requirements to the current limited number of qualified individuals to meet these development goals.

The project leaders asked the teachers to become specialists in an academic subject and to learn a practical skill. In addition, they asked the instructors to be proficient in other subjects so that they could teach various courses. The teachers, therefore, began learning practical skills that they could teach as part of the elective courses or other after-school activities.

In the last ten years, many teachers have attended in-service classes at their schools to learn these new skills. Others have gone to the teacher training institutes in their counties or in Changchun, Jilin's capital. Others still have used their holidays to take courses or have turned to experts in the fields of health, culture, science and technology to learn new skills. Now, these newly trained teachers instruct elective classes as well as traditional academic subjects.

Xuxiu Feng, a 34-year-old teacher at the Hengdaohe school, teaches language and mathematics in the morning and arts and crafts in the afternoon. The project has made her realise that she needs to strengthen her



teaching skills. "What I know now is not enough," she says. "I think as society develops, I will need more knowledge. I am now working on getting my university diploma."

Every Friday afternoon, she and the other teachers also attend an in-service class. Mr Bin, a civics teacher, has taught drawing at some of these after-school courses for the staff. "The teaching level has improved," Mr Liu says. "Now all the teachers can teach reading as well as another subject."

To solve the constant shortage of skilled teachers, schools employ part-time teachers, professionals and others willing to share their expertise with the students as well as the teaching staff. The township education management committee works closely with the institutions providing these professionals as part-time teachers. The institutions provide the teachers and free them from their normal work load to teach at the school. The school sets the time, the content and provides teacher training to these professionals.

In some schools, doctors teach health and nutrition. In others, local police officers teach law. Farmers and agricultural researchers provide information on innovative farming techniques or how to use pesticides correctly. Teachers also attend these classes to broaden their knowledge and instruction skills. In this way, other members of the community play an active role in their local schools while the students benefit from their knowledge and expertise.

The Jilin project also redesigned classroom instruction to focus on goals by defining specific objectives to be reached at each grade level. In some schools, more experienced teachers are paired with rookies or master teachers. These people teach their more inexperienced counterparts how to prepare lessons, teaching materials, lecture, evaluate, and manage the classroom. They do this through guidance, demonstration and allowing the trainees to observe. The apprentice teachers then practice these new methods themselves.

The experimental programme also transformed teaching styles. It discouraged teachers from simply lecturing and providing facts while students absorbed information passively. The project's in-service training and other instruction spurred teachers to make the classroom environment livelier with attention focused on the learner not the teacher. As a result, teachers and students adopted more active approaches in their teaching and learning.

Teachers also learned to encourage students to solve problems with the knowledge they had learned. They urged the pupils to ask questions and to discover their own solutions. "The schools reformed teaching methods," says Luan Chanda, the vice-president of the Jilin Educational Science Research Institute. "For example, in mathematics we experimented on the thinking of students—from the deductive to the inductive".

Combining theory with practice, education with production

理論實踐互联系

教育生產相結合

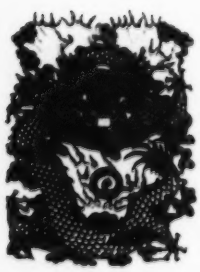
Jilin's experimental schools shine in their hands-on elective courses. Each week students spend an average of two hours in classroom workshops and one hour in the fields, depending on the season and the needs of the locally grown crops.

Elective courses include calligraphy, painting, theatre, computing and many other subjects. The pupils also learn agricultural techniques such as raising animals, planting seeds and vegetables, using farm tools and machinery.

"We think that if we teach them some real life activities such as sewing and embroidery while they are young, we can help them to earn a living when they enter society," says Wang Youmei, vice principal at Hengdaohe Township School.

Boys and girls at her school learn how to operate sewing machines. They make shoe liners, red school scarves, and other useful items. Students at the Xinli Primary School in Fuyo County even drive tractors. In the Central Primary School of Sanshengyu, Nong'an County, the boys repair bikes. The root carving group of Fusheng Primary School of Dongfeng County has produced more than 500 sculpted handicraft articles.

"Before this project, many students did not like to come to school," Ms Xuxiu, the Hengdaohe school teacher says. "But now, they find it very interesting and their concentration has improved."



The fruits of labour

The results of this ten-year experiment are varied and far-reaching. They can be summed up as the following:

- the transformation of the management of Jilin's schools through the effective inclusion of parents, village leaders and others;
- the development of curricula, more relevant and better-adapted to life in rural provinces, which help prevent the alienation of students from their culture;
- the creation of parent committees that take a direct interest in their children's education;
- the improvement of the training and scope of teachers;
- the employment of specialists as temporary and part-time teachers thereby providing students with expert knowledge and involving specialist institutions with the school. As a result this project has built a closer relationship between schools and society.
- the change in attitudes with communities no longer viewing schools as isolated learning institutions, but as a vital part of their local economy and its future, students holding key knowledge of direct interest to the community.

Students in this programme now drive tractors, repair bicycles and have planted more than 20 kinds of high-yield crops. Some schools have set up small businesses that sell chickens, seeds and saplings. Pupils have voiced a preference for going to school rather than staying at home. The drop-out rate has decreased. Parents are benefiting directly from the new farming techniques their children have learned at school.

More significantly, children's reading, writing and mathematics scores have improved considerably. Several factors account for this progress. Though they spend less time in the classroom, students spend more time on activities that use their classroom-acquired skills. The project has trained teachers to make the school environment livelier. A 1993 evaluation of the project's first seven years revealed the following advances: among the students in the 12 pilot schools, average scores in composition skills rose to 45 per cent from 29 per cent when the project began in 1987. The ability to solve and analyse mathematical problems rose to 48 per cent from 32 per cent during the same period. In comparison, student scores at schools not involved in the Comprehensive Rural Primary Education Reform Project (CRPERP) did not improve at the same pace. For example, their composition skills and their ability to solve math problems only rose to 33 per cent in 1993.

"This project has helped schools in poor counties improve their academic conditions and lure back drop-out students," Mr Chen says. "After reforming the schools, we educated the students to work for the local economy."

Integrating education to serve the goals of local production is, as stated before, one of the founding goals of the project. As a result, the schools now serve as local labour bases ready to help the community. They not only create and maintain crop-producing

fields but they are also centres of experiment and research yielding insights and data to improve local agriculture.

In addition, the project has begun to develop standards to evaluate the practical skills learnt, especially those related to agriculture. For instance, in the lower primary grades pupils are expected to be able to identify the plants on their school campus and fields. They should be familiar with common farm tools and have some basic knowledge on how to use them. In the middle grades, students should be able to work on their own projects, have basic knowledge of animal husbandry and be able to identify chemical fertilisers and pesticides. By the upper elementary grades, they should know how to use farm tools, natural and chemical fertilisers and pesticides. They should possess the skills to do one or two kinds of farm work, such as the planting, caring and harvesting of corn.

The project has also succeeded in developing a working model of rural primary education that contributes to development by integrating society, school and the family. It has done so by developing textbooks with relevant content and forming teaching teams that include specially trained professional teachers and experts from other fields of knowledge. It has enriched the idea of rural primary education by combining theory with practice.

For too many years, preparing students to enter high school has been the main goal of primary schools. This reform project still seeks to train students to complete the nine-year compulsory education successfully. But beyond this, it aims to arm pupils with basic knowledge on local production, labour and other skills that should help to make them self-reliant.

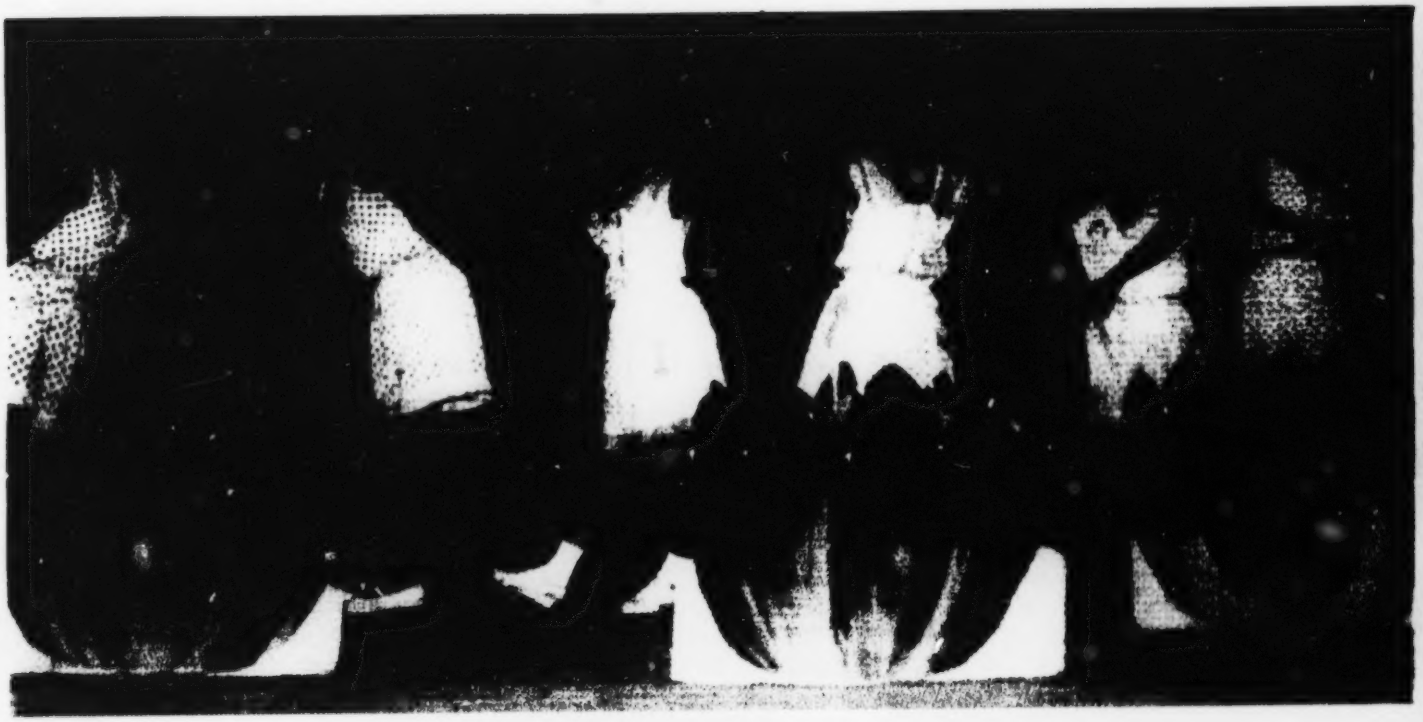
A high-quality teaching team is an integral part of any thriving school. The Jilin project has rejected the use of traditional teachers versed in only one subject. Instead, one of the major activities is training teachers to teach several subjects. These subject areas include at least one dealing with agricultural production and another that is a suitable after-school activity. The project has also developed the idea of teaching teams consisting of the regular teacher, part-time and temporary teachers. These part-time and temporary teachers, often experts in another field, enhance and broaden the education provided to students. They also serve as role models. By reforming the management team of the schools to include community leaders, the project has succeeded in making schools an integral part of local development and economic plans. This has benefited the schools because local leaders take a direct interest in the school's operations, goals and performance.

劳動與成果

The Jilin experiment has not only developed a viable system of rural primary education. It has also succeeded in promoting student individuality, mostly through the rich and varied after-school activities. Furthermore it has succeeded in linking education to the family and improving local development. As a result, the project schools have introduced more than 200 kinds of improved crops into the local farms such as golden melon and sea garlic. School experiments have produced better strains of beans and rice. The students have planted at least 80 hybrids of corn and other high-yield crops in the fields and rolling hills near their schools.

"Now we can see some results," says Lu Sid, a Fusong County education official. "Before the project, the students could just read and write. They could do nothing with their hands. Now they can do practical things. They know agricultural techniques. They can plant corn and rice and they can help farmers in planning and implementing the use of fertilisers."

What is more important, the students can pass on these innovative techniques to their parents. Mr Lu



notes "most of the students come from farming families. But their parents have never been exposed to new methods. Now the students teach their parents."

For instance, the average income per person in Fusong County's Wanliang Township has risen in the last two years, says Xu Bin, Fusong County's magistrate. Now a farmer earns about 2,700 yuan a month compared to the 2,000 yuan * he earned in 1994 when this town's primary school first joined the project.

Success stories abound elsewhere. The pupils at Xinli Primary School have provided about 50,000 kilos of improved seeds to the inhabitants of Fuyu County. Students working at the chicken-breeding farm in the Central School of Hengdaohe Township have introduced a new chicken called the "super yisahe." They generate extra income for the school by selling this breed, as well as the corn, rice and grapes they grow on the school's 90 mu (six hectares) of fields.

At the Yaodao Primary School in Qiangang Township, students tend a nursery of grape vines and weeping willow trees. They donate many of their saplings to the community. They share their cultivating skills with farmers through their newsletter.

Huajia Commune students in Nong'an work on 540 mu (36 hectares) of mostly wheat and corn. Their labour has earned the school an annual income of about 10,000 yuan school officials say.

The project schools have also changed community attitudes. Farmers and residents now see the school as a positive factor in their economic development. They view investing in the school as a way to improve their future.

In the first phase of this project, 1987-93, the local governments reached into their pockets and spent more than 3.2 million yuan to repair and rebuild the experimental schools. Hengdaohe Township built a new building in 1994. The Sanshengyu government of Nong'an County spent 400,000 yuan and built new classrooms and renovated others. Shanyou Township in Fuyo County invested 240,000 yuan in new facilities.

** US$ 1 = approx. 8 Yuan*

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Cultivating and spreading the reform project

持續拓展改革計劃

The Jilin project is important because it not only began but also succeeded, lasted and expanded. The major elements of the reform programme—a relevant curriculum, elective courses and field activities—are not especially original or new. Their implementation required revising the curriculum, preparing local or school-based education materials, training teachers and attracting the active participation of parents as well as community leaders. These components on their own are not particularly innovative. Education authorities in many countries have incorporated them into reform projects in some combination or another with varying degrees of success. The Jilin project stands out because it has endured and widened. One of the keys to its longevity and success is the pace and depth at which Jilin education officials have implemented it. From 12 pilot schools in six counties it spread to 146 schools in 46 counties during the second phase that began in 1994. A third phase that was to begin a few years later had planned to include all of Jilin province's 11,000 elementary schools. But after completing the first seven-year cycle in 1994, Jilin officials realised that it was premature to make it a province-wide programme so quickly. They learned some lessons from the first phase and revised their plans for the second and third stages. Much of what they learned is a result of a detailed evaluation that the provincial educators published in 1994.

When this programme began in 1987, the aim of the project was to develop a rural primary education model that linked schools to society's development goals. The Jilin officials regarded it as an experiment to make schools contribute towards economic progress. But seven years later they realised that research into certain problems needed to be "developed and deepened."

The Jilin project addresses only primary schools or the first six years of China's nine-year compulsory education requirements. The education officials saw that they needed to find a way to spread and integrate the experiment to high schools as the students graduated. They also came to the conclusion that this reform project also needed to be extended to informal education for adults.

The Jilin officials realised that designing books and other teaching materials with content that was local, rural and relevant was fundamental for the success of this reform project. But they also discovered what a phenomenal task it was to ensure the quality and uniformity of these educational tools. They agreed to compile a new set of textbooks.

Beyond books and other supplementary materials, the project leaders saw that the experiment could not be expanded to further schools without more, and better-trained teachers. They discovered, that despite the additional training provided to the project teachers, many were still saddled with

traditional educational theories, attitudes and practices. The Jilin officials decided they needed to strengthen teacher training by making sure that local teaching institutions focused on preparing instructors for the needs and demands of working in rural primary schools.

Armed with the results and insights of the initial evaluation, the Jilin officials moved towards the experiment's second cycle by extending this reform scheme to hundreds of schools in the province. First, they identified other rural schools in the province's 59 counties. They discovered that 13 of the counties were too poor to implement compulsory primary education. They could not burden schools in these areas with an experimental project that relies on solid local government and community financial backing. The educators eventually settled on the current 146 schools.

Floods, fires and other natural calamities beyond their control also forced the Jilin officials to revise their expansion plans. "We must adjust to actual realities," Ms Zhang says. "For example, we did not count on 35 natural disasters last year which took much of our effort and resources just to keep the school system viable in the affected areas. We did not anticipate the extent to which materials needed to be re-organised and teachers re-trained."

The difficulties encountered in the first two phases have led Jilin officials to reconsider their original plans to expand the programme rapidly throughout the province. They realised that it was a herculean task to help 146 schools maintain the same innovative spirit and high standards set by the original pioneer group of 12.

"The reform project takes much preparation," says Jin Hede, a professor at Jilin's North East Normal

University. "You have to train community leaders, train teachers, improve the management of the school and develop new textbooks. Jilin province is a big province with a large population, so it is not easy to expand fast. We must do so step by step."

Jilin officials have now revised their targets for the reform programme. The second cycle should end in 1998. The third phase involving about 2,000 schools should begin two years later. They are still not sure when they will implement these reforms throughout the province's 11,000 schools.

"Why didn't we expand province-wide in the second cycle?," Mr Chen asks rhetorically. "Because our purpose was to make this project truly progressive," he says. "The key to the survival and flourishing of this project is that it has learned to be balanced and flexible."

Expanding too fast would compromise the project's reputation, Mr Chen explains. Many schools would not be capable of implementing the reform correctly and consequently their academic scores or local economy would not improve. This would cast a shadow on the success stories of the pilot schools.

However, Mr Chen warns against expanding too slowly. This might generate an elite breed of superior schools that would siphon resources from the county governments at the expense of more needy schools.

Mr Chen stresses that only schools that manage to get strong backing and interest from their community will truly succeed. "It is important to judge the readiness of the local community," he says. "One of the keys to the success of this project is the seriousness and dedication that townships and schools give to striving to qualify and to sustain the high standards and reputation of the project."

Despite cutting back on the original ambitious plans to implement this project in all of Jilin's elementary schools, the reform programme is spreading spontaneously beyond the official 146 schools in the current cycle. Many elementary and some middle schools are unofficially adopting some of its approaches and methods.

"There are many counties which have learned from the few official pilot schools in their areas," Ms Zhang says. "On their own initiative, some educational committees in these counties have applied these lessons to other schools within their districts. More than 100 other schools are using the textbooks designed by the province for the project." For example, "the Central Primary School of Sanshengyu Town in Nong'an County produced a major effect on neighbouring schools", says Bai Yuaxia, deputy chairwoman of this north western county's education department. Other elementary schools in the county have adopted materials produced and used in this pilot school, she explains.

In addition, the project has expanded unofficially by following students from the experimental schools as they move up the academic ladder to junior high school. "There is another informal spill-over from the

success of our pilot school." Ms Bai adds. "Our students (from the experimental school) are now entering middle schools, and we have had to adjust the curriculum contents, teaching methods, indeed the whole philosophy of the middle schools that receive them."

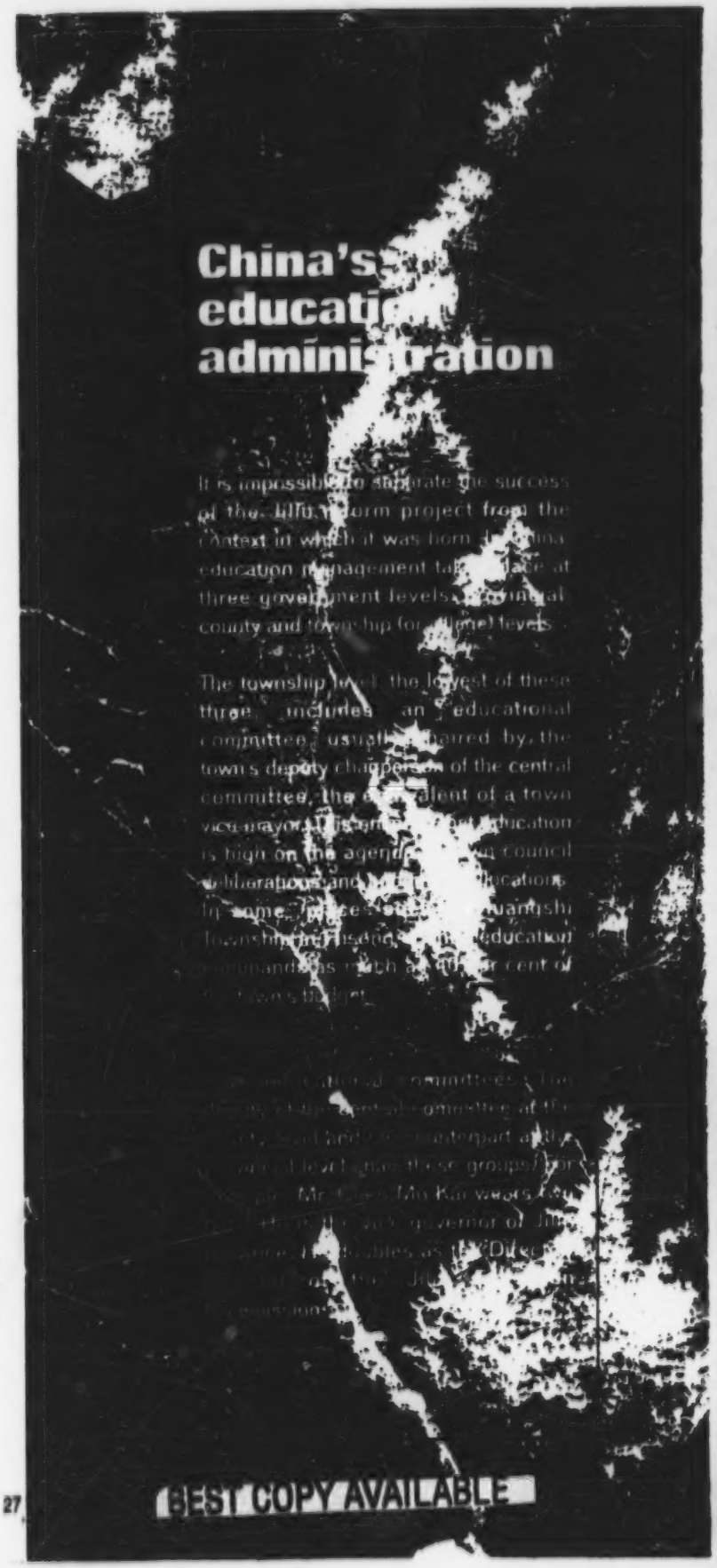
Ms Zhang refers to Nong'an as an example that schools throughout the project will eventually adopt this reform plan. The lessons learned in implementing this experiment should gradually transform the policy and practice of the entire primary school system.

To spur this informal process, Jilin officials said they were considering preparing guidelines for educational committees and schools that would help them implement this reform plan. With these guidelines, communities and or schools could begin implementing their reform plans at their own pace.

The careful expansion of the Jilin project is part of a comprehensive plan to reform education at all levels in the province. Mr Chen explains. "We are now trying to move towards overall reform of the elementary, vocational and adult education schools," he says. "All of them should eventually integrate education with agriculture and technology."

The unflagging dedication of Mr Chen and Ms Zhang is another major key to the reform project's success. Since its very beginning, these two educators have followed the experiment closely. They have attracted Beijing's interest in the plan. They have been unfailing in their commitment to making sure the project is carefully monitored and evaluated.

Mr Chen and Ms Zhang expect all the province's 11,000 elementary schools to implement this programme eventually. They anticipate that Jilin will be the "head of the dragon" leading China's educational reform. "One aim of our project is to spread our expertise to Asia and the Pacific and other Third World countries," Ms Zhang says.


China's
educati
adminis ration
It is impossib to separate the success
of the Jilin reform project from the
context in which it was born. China's
education management tak place at
three government levels: provincial,
county and township (or equivalent) levels.
The township level, the lowest of these
three, includes an "educational
committee," usually chaired by the
town's deputy chairperson of the central
committee, the equivalent of a town
vice-mayor. Its members on education
is high on the agend
In some places
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Epilogue

It is rare to see a project so successful and so widespread from such small beginnings. Indeed, UNESCO's initial contribution was quite modest and yet the project still worked. This paradox offers much hope for organisations such as UNESCO working with basic education projects throughout the world. Providing education for all is a huge challenge that requires enormous investment, yet UNESCO can only deliver limited human and financial resources. It is estimated that international assistance for basic education from all agencies combined, including banks, constitutes far less than 1% of that contributed by national governments and increasingly by local communities. Therefore, if agencies such as UNESCO are to make any significant impact it is imperative that they fashion or seek out interventions actively which are not just supports to ongoing usual work. They must back initiatives, activities, projects and programmes that provide genuine breakthroughs which can be expanded and sustained over time.

So with a modest contribution from UNESCO, used strategically to transform a handful of schools, the Jilin officials succeeded in drawing lessons from the initial phase and applying this knowledge systematically to a larger number of schools. It was the proverbial reaping of the hundred-fold. It is particularly heartening to see how the Jilin project grew from its beginnings into such a vast programme when so many seemingly good projects stay small or even wither and die once outside project funding is exhausted.

In a more fundamental sense, the Jilin experience seems to contain lessons on how successful small pilot projects, whether externally assisted or not, can grow to transform virtually an entire school system. UNESCO can claim to be the spark that contributed to kindling the experiment. However, it is the officials and people of Jilin who deserve the credit for making it succeed, grow, endure and flourish. The desire for change was already there and the project would have no doubt succeeded regardless of whether the catalyst was internal or external to Jilin.

Observing both the successes and the difficulties of the Jilin experience over the years, several key lessons appear important for others:

1.Perhaps the first lesson to be learned from the Jilin story is that reform efforts must be founded on a fundamentally valid premise. In this case, the driving force of the reform was to make rural primary schooling more relevant so that it would have a direct impact on the productivity and well-being of the community. This sound principle made it easy to mobilise and sustain the support of parents, teachers, local communities and the central government.

2.Understanding the internal rhythms emanating from a successful small-scale pilot or experimental project to a large province- or nation -wide policy is the second lesson. There is a tendency to rest on the laurels and accomplishments of a small project and make it succeed to a point where replicating becomes too expensive or complicated. There is the reverse tendency to want to expand too rapidly in the flush of initial success, as the Jilin officials were originally tempted. To their credit they learned by experience the pitfalls of too ambitious an expansion plan. These experiences and the natural calamities that befell Jilin and slowed down progress persuaded the educators that a more long-range time frame for expansion was more realistic and viable.

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3. A third lesson is the value of preserving a balanced and integrated approach to educational reform. Many similar projects lapse into emphasising only one dimension of reform. Too often the project leaders draw up an expansion formula focusing on only that single aspect such as teacher in-service training or curriculum/materials development or innovative school management approaches. The architects of the Jilin project stuck doggedly to the entire recipe for comprehensive school reform. They ensured that schools that joined the programme paid due attention to work productivity, maintenance and improvement of school grounds, teacher training, local curriculum development and many other aspects.

4.Creating and maintaining a winning spirit and a culture of success proved important to set the climate that made joining the project a highly desirable goal for other schools. Other schools began examining the reform project unofficially and soon realised that participating required much prior participation. This simplified and spurred the expansion process because once the project was ready to absorb other schools they had already done their groundwork.

5. Finally, it is important to recognise the golden thread that ties all the elements of success together—the continuity of a highly motivated and inspired leadership at all levels. At the project level, the current chairman of the Jilin Provincial Education Committee and vice chairwoman specifically in charge of the project are the same two individuals who started the project seven years ago. They provide the original leadership and the drive, undiminished and sustained to this day, that makes the project flourish: they also bring the memory of accumulated experience and lessons learned from the string of success, setbacks, opportunities and obstacles that the project has undergone over ten years. Schools and communities that were part of the original phase of the project continue at high success levels, sustained by the additional responsibility of serving as models for many others. Beyond this, officials of local and national central governments have never failed to provide the strongest policy support for the project, disseminating key policy statements and slogans that convince communities that education is the key to future development and must always be first priority.

The publication of the Jilin experience in the Innovations series appeared fitting for a number of reasons. Certain of its elements are not ground-breaking but others are. Its goal of making primary education more relevant, more beneficial to the community, is commonplace. Even the disparate elements - modifying the curriculum to meet local needs, in-service teacher training, parent involvement - are not new to many educators. In one sense, the project is not innovative. Its objectives and components are well known to scholars and practitioners of education reform. What makes this programme innovative is the way the objectives have been translated into practice and the way the elements have been combined and juxtaposed to effect a fundamental improvement in quality and relevance.

In a more profound sense, and unlike so many other pilot projects that fail or that do not last beyond a limited initial stage, the Jilin project is innovative in weaving its objectives and components into a sustainable and seamless process of fundamentally upgrading and transforming an entire network of 11,000 schools servicing 25 million people. Its methodical expansion, long-term sustainability, community ownership and remarkable success are precisely its innovation. And that is worth closer study by all interested in improving basic education.

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FEATURES Taking Work

Teachers

The Confucian tradition of respect for elders and teachers is waning in modern day China. New economic and political realities are transforming the ancient practice.

The responsibility of passing on wisdom to the next generation has moved from village elders to central bureaucrats partly as a result of legislation demanding compulsory education. The role of the teacher has, for this reason, slowly diminished from sage to government cadre. The community regards them less and less as the guardians and sources of society's accumulated knowledge. They picture teachers as faceless employees of a large government machinery dispensing schooling as a mere commodity.

Lower wages attracted the less talented. More lucrative occupations lured the brightest teachers away from the once honored position in society.

Mr. Liu Bin, vice chairman of China's State Education Commission, recently recognized this alarming phenomenon. Last year he persuaded China's National People's Congress to take two bold policy decisions that would lead to improving salaries and stability and consequently restore the dignity and prestige of teachers.

The federal government issued a decree calling on local governments to pay teachers first before other civil employees or expect 1995, it released ten billion yuan to develop [illegible] housing for teachers. [illegible] lessen the burden for teachers. The [illegible] confidence that the government [illegible] their salaries on time, and in these cities [illegible] are dedicating themselves to teaching. [illegible] officials expect that eventually the community will again hold [illegible] and regard them [illegible] as they [illegible]

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Mr Liu Bin

Mr Liu Bin is vice-chairman of China's State Education Commission. The following are highlights on what makes education successful in China, particularly in Jilin Province, as a result of its reform process.

Three reasons lie behind China and Jilin's educational accomplishments, according to Mr Liu Bin. First, the government gives education the highest importance. Second, local people are willing to invest in education. Third, international co-operation and support have been instrumental.

For Mr Liu, education is of the utmost importance because children are considered the foundation for building [illegible]. There is a Chinese expression [illegible]. As Mr Liu explains, if you do not [illegible] school, you get [illegible]. If you do [illegible] decades, several [illegible].

[illegible] for great time, patience and [illegible] for the sake of children's education, Mr Liu emphasises. Again, he [illegible] a further well-known expression: [illegible] but not education in [illegible] but in the child.

Mr Liu praises farmers for the success of Jilin's rural education reforms. "The secret is the participation of the farmers," he says. Though farmers receive appropriate government support, they are self-reliant. When government aid is not sufficient, the farmers supply the rest [illegible].

Bottom-up roots support another reason for China's successful schooling efforts: the Chinese time-worn respect for education that continues to this day. For centuries, the Chinese have honoured and revered teachers as the wise providers of education. In addition, children of all social levels and backgrounds have always gone to school. Communities have organized themselves to make sure that every child has the opportunity to attend [illegible]. As local governments become [illegible] attracts and the resources [illegible] the central government goal. [illegible] work of [illegible] primary at the [illegible] level, secondary at the township [illegible] town school at the district level – that can motivate and mobilise people.

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Mr Gan

Gan Bo Tao sits upright at a desk in his third floor office. He stares out of the window that overlooks the dusty square bordered on three sides by one-story buildings. A flagpole bearing the red Chinese flag stands aloft in the centre. A green wall of mountainside covered in ginseng and corn rises behind.

Mr Gan is the principal of the elementary school of Wanliang township in Fusong County. This school of the south-eastern corner of Jilin Province joined the second phase of the UNESCO project to reform rural education in 1984. For Mr Gan these last few years represent the most challenging stage in his career that began nearly 30 years ago.

He was born in Jilin City 49 years ago. After completing high school he underwent teacher training. At the age of 20 he began his career in the Mangan Township primary school. After teaching in three different elementary schools, county officials recognised his superior pedagogic skills. In 1983 they asked him to join the research department of the Fusong County teacher training college.

"The leaders appointed me to do research because I was considered an excellent teacher," he says in a straightforward tone. "I did research on the teaching of Chinese and I trained teachers as well," he adds.

Four years later, Mr Gan became the principal in Wanliang Township, a village renowned in China for its ginseng. That year, 1987, also marked the beginning of the project to reform rural education. For five years, Mr Gan observed this experiment closely. In 1992, he signed up his school for the second cycle and started preparing.

"This was not an easy task," admits the headmaster as he pushes back his grey wire brush hair. "A school has to prepare quite a lot to join the project. You need to prepare teaching material, train teachers, set up labs and other facilities."

Xu Bin, the magistrate of Fusong County, recognised these problems. "There were not enough good quality teachers," he says. "But the governor supported the schools and with the additional education tax it overcame this difficulty. The teachers were trained. Some went to the capital for training and others learned through distance education."

The next step was to revise the curriculum. Mr Gan explains: "First the school changed the educational contents by combining the current national curriculum with the provincial textbooks designed for the project. We discarded those lessons from the national textbooks that had no relevance to local reality," he says.

"Then we compiled textbooks, one on growing ginseng and another on health. This laid the foundation for meeting the needs of the local economy," he says. Teachers at Wanliang School added elective courses in agriculture, computing, fine arts, physical education and others. This required eliminating two 35 minute periods in both reading and math from the weekly load.

Mr Gan then called upon the parents. He organised meetings and informed them of the reform project. Their support followed. They began contributing time and money.

A year later, the programme finally began in Wanliang School. "This project closely reflects real life in a rural county," the headmaster says. "It meets the educational needs of the parents who want schools to train children to earn their living."

They learn these skills in the elective and agricultural courses the school provides in the

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workshops and fields below Mr Gan's window. He points to the buildings that house these activities: drawing, music, dancing, basketball and other classes. "Students choose the courses that interest them," the principal says. Those students who are not interested in elective classes can opt for additional tutoring in Chinese and math, he adds.

Mr Gan's smile widens when he speaks of the computer room and printing press where students run off newsletters and their textbooks. Since the programme began two years ago, the faculty has written many leaflets on civics and how to grow corn, rice and peas in mountainous areas. The students have learned lay-out and graphic design, he boasts.

The local government has donated 39,293 sq mu (2,620 hectares) to Wanbang School to grow ginseng, apples, plums, peas and potatoes. During field practice, experts have taught the students the latest agricultural techniques. From the school, these newly acquired methods have spread to others in the township.

"Students have mastered basic skills in their field work," Mr Gan says. "For instance, people were invited to teach us about planting techniques to our fourth and fifth graders. These students took this expertise home to help their parents with the planting. A teacher taught his brother how to plant ginseng, too. Last year, he earned 20,000 yuan."

There is another school in nearby Wanbang Township, about two kilometres from Rixu Village. The primary school in this hamlet is one long school house with nine classrooms. This row of building faces a large field with slides and basketball hoops. On game days, boys and girls spend their days here swapping or performing [illegible] goods.

The 74 students and their seven teachers are not part of Jilin Province's rural education reform project. "Our village cannot afford it," explains principal Fan Changjie. "We would like to join the project, but the conditions are not right. We do not have enough money, equipment and qualified teachers."

As a result, the school's academic scores are lower than those achieved by Mr Gan's students, Mr. Fan admits. "Our average mark is seven to 10 per cent lower than in Mr Gan's school in both reading and math at all grade levels," she says.

Mr Gan concedes that money has been the biggest obstacle to implementing the project. The government provided financial support and other backing because Wanbang Township school is considered an important school in the county because of its 987 students and 57 teachers.

"Money has been the hardest part," he says. "Training teachers costs money. You have to pay the experts. Parents contribute some money, but it's not enough. But selling the ginseng grown by [illegible]

Despite these obstacles, Mr Gan considers the reform project a success. "This school is unique because it trains people to make a living," he says. "I feel very proud because when the students graduate they are useful to society. They always have confidence."

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